

ABSTRACT OF THE DISCLOSURE

Before executing a speech recognition, a composite acoustic model adapted to noise is generated by composition of a noise adaptive
5 representative acoustic model generated by noise-adaptation of each
representative acoustic model and difference models stored in
advance in a storing section, respectively. Then, the noise and
speaker adaptive acoustic model is generated by executing
speaker-adaptation to the composite acoustic model with the feature
10 vector series of uttered speech. The renewal difference model is
generated by the difference between the noise and speaker adaptive
acoustic model and the noise adaptive representative acoustic model,
to replace the difference model stored in the storing section
therewith. The speech recognition is performed by comparing the
15 feature vector series of the uttered speech to be recognized with
the composite acoustic model adapted to noise and speaker generated
by the composition of the noise adaptive representative acoustic
model and the renewal difference model.